BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND PART BILL

Name of work: Improvements to Roads and Drains at Yerappa Garden in Ward No. 09 (Vidyaranyapura).

Estimated Cost : Rs. 96.00 Lakhs

Job Code: 009-22-000011

Head of Account : P-0190 Works Sancrioned by Hon. Mayot

Name of Agency: M/s. K. R Constructions, Prop: C. Mahesh, No. 286, 7th B Cross, Jakkur Layout, Bangalore.

Work order No: BBMP/EE/BTP/WO/55/2022-23 Dated: 29-06-2022.

Measurements Recarded on : 28/07/2022

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead I By Manual Means B Cement Concrete Grade M-15 & M-20									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 1 is =							**5.04**	844.31	**4255.00**
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead (iii) Dismantling Stone Masonry B Rubble stone masonry in cement mortar.									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 2 is =							**9.48**	555.56	**5267.00**
3	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 3 to 5 is =							**584.91**	214.83	**125656.00**

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
4	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications.									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 6 to 7 is =							**71.18**	6643.56	**472889.00**
5	Providing and laying in position Reinforced Cement Concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately)									
	Drain								Cum	
	Bottom Raft									
	4th A Cross Road Seetha Ramaya Layout									
	E/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	1.30			0.90	0.15	0.18		
	W/S									
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	3.10			0.90	0.15	0.42		
	Pruthvi Enclave Road N/S									
		1	15.00			0.90	0.15	2.03		
		1	3.20			0.90	0.15	0.43		
		1	15.00			0.90	0.15	2.03		
		1	9.30			0.90	0.15	1.26		

30.63

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	Chikka Venkatappa Layout Main Road								30.63	
	W/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	12.80			0.90	0.15	1.73		
		1	3.60			0.90	0.15	0.49		
		1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	4.70			0.90	0.15	0.63		
	E/S	1	10.60			0.90	0.15	1.43		
	S/S	1	15.00			0.90	0.15	2.03		
		1	15.00			0.90	0.15	2.03		
		1	7.50			0.90	0.15	1.01		
	Side Wall									
	4th A Cross Road Seetha Ramaya Layout									
	E/S	2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	1.30			0.15	0.60	0.23		
	W/S									
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	15.00			0.15	0.60	2.70		
		2	3.10			0.15	0.60	0.56		
	Pruthvi Enclave Road N/S									
		2	15.00			0.15	0.60	2.70		
		2	3.20			0.15	0.60	0.58		
		2	15.00			0.15	0.60	2.70		
		2	9.30			0.15	0.60	1.67		
	Chikka Venkatappa Layout Main Road									
	W/S	2	15.00			0.15	0.55	2.48		
		2	15.00			0.15	0.55	2.48		
		2	15.00			0.15	0.55	2.48		
		2	15.00			0.15	0.55	2.48		
		2	12.80			0.15	0.55	2.11		

105.57

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
		2	3.60			0.15	0.55	0.59	105.57	
		2	15.00			0.15	0.55	2.48		
		2	15.00			0.15	0.55	2.48		
		2	4.70			0.15	0.55	0.78		
	E/S	2	10.60			0.15	0.50	1.59		
	S/S	2	15.00			0.15	0.50	2.25		
		2	15.00			0.15	0.50	2.25		
		2	7.50			0.15	0.50	1.13		
	Culverts									
	Raft									
	Main Road	1	6.30			1.60	0.20	2.02		
	Pruthvi Enclave Road	1	5.10			1.40	0.20	1.43		
	Cross Road 1	1	5.80			1.40	0.20	1.62		
	Cross Road 2	1	5.00			1.40	0.20	1.40		
	4th Main Road	1	6.00			1.60	0.20	1.92		
		1	7.80			1.60	0.20	2.50		
	Side Wall									
	Main Road	2	6.30			0.23	0.60	1.74		
	Pruthvi Enclave Road	2	5.10			0.23	0.60	1.41		
	Cross Road 1	2	5.80			0.23	0.60	1.60		
	Cross Road 2	2	5.00			0.23	0.60	1.38		
	4th Main Road	2	6.00			0.23	0.60	1.66		
		2	7.80			0.23	0.60	2.15		
			Total Qty =					**139.33**		
	Total		Total Qty =					**139.06**	7586.96	**1055043.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidayranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No.	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	Measurements Recarded on :	29/07/2022								
6	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.									
									Tonne	
	Qty as per Premeasurement vide E-MB Page No. 8 to 9 is =							8.92	119345.00	**1064557.00**
7	Providing and Fixing pre cast Covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift, transportation etc, copmplete. (Data									
	For New Drain								Sqm	
	4th A Cross Road Seetharamaiah Layout E/S									
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	1.30			0.90		1.17		
	Deduct	-1	5.90			0.90		-5.31		
	W/S									
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	3.10			0.90		2.79		
		-2	9.00			0.90		-16.20		
	Pruthi Enclave Road N/S									
		1	15.00			0.90		13.50		
		1	3.20			0.90		2.88		
		1	15.00			0.90		13.50		
		1	9.30			0.90		8.37		
	S/S	1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
	Main Road	1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	6.00			0.90		5.40		
	Chikka Venkatappa Layout Main Road									
	W/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	12.80			0.75		9.60		
		1	3.60			0.75		2.70		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	4.70			0.75		3.53		

29/07/22

29/07/22

317.63

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	E/S	1	10.60			0.75		7.95		
	S/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	7.50			0.75		5.63		
	Drain Desilt									
	Yerappa Garden Main Road	1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	15.00			0.90		13.50		
		1	5.10			0.90		4.59		
	W0602									
	R/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	14.20			0.75		10.65		
	L/S									
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	14.20			0.75		10.65		
	W0917									
	R/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	2.10			0.75		1.58		
	L/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	2.10			0.75		1.58		
	W0919									
	R/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	2.00			0.75		1.50		

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	L/S	1	15.00			0.75		11.25	803.78	
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	2.00			0.75		1.50		
	W0913									
	R/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	6.50			0.75		4.88		
	L/S	1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	15.00			0.75		11.25		
		1	6.50			0.75		4.88		
			Total Qty =					**893.79**		
	Total		Total Qty =					**893.43**	2453.85	**2192343.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidayranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	Measurements Recarded on :	29/07/2022								
8	Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge									
	Culvert								Sqm	
	Main Road	1	6.30			1.50		9.45		
	Pruthvi Enclave Road	1	5.10			1.20		6.12		
	Cross Road 1	1	5.80			1.20		6.96		
	Cross Road 2	1	5.00			1.20		6.00		
	4th Main Road	1	6.00			1.50		9.00		
		1	7.80			1.50		11.70		
								49.23		
	Total		Total Qty =					**48.24**	5688.90	**274433.00**

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidayranyapura Sub Division

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Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
	Measurements Recarded on :	30/07/2022								
9	Earth work in surface Excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth.									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 10 is =							**180.03**	75.08	**13517.00**
10	Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.									
									Sqm	
	Qty as per Premeasurement vide E-MB Page No. 11 is =							**514.38**	6.68	**3436.00**
11	Construction of Granular Sub-Base of required grading as per design mixing in a mechanical mix plant at OMC, carriageof mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401 (For Grading -V Material)									
									Cum	
	Qty as per Premeasurement vide E-MB Page No. 12 is =							**77.16**	2710.79	**209165.00**
12	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density									
	For New Road								Cum	
	4th A Cross Road Seetha Ramayya Layout									
		1	15.00	6.00	4.80	5.40	0.25	20.25		
		1	15.00	4.80	5.80	5.30	0.25	19.88		
		1	15.00	5.80	5.20	5.50	0.25	20.63		
		1	15.00	5.20	5.80	5.50	0.25	20.63		
		1	15.00	5.80	5.60	5.70	0.25	21.38		
		1	15.00	5.60	6.00	5.80	0.25	21.75		
		1	2.80	6.00	5.70	5.85	0.25	4.10		
	Total		Total Qty =					**128.60**	2765.07	**355574.00**
25	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3)									
	Qty Vide Item No- (3+9)							764.94	Cum	
	Total							**764.94**	81.40	**62266.00**

Sl No	Description of work	Mesurement						Qty.	Rate / Unit	Amount
		No.	L	B1	B2	Av.B	D			
26	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km									
	Qty frm Item No-25		764.94			1.28		979.12	T.Km	
	Total							**979.12**	121.28	**118748.00**
									Grand Total	**5957149.00**
									GST Charges (12% of Execution Cost)	**714858.00**
									Total Amount	**6672007.00**

Assistant Engineer
Ward No. 09

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Vidyaranyapura Sub Division

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